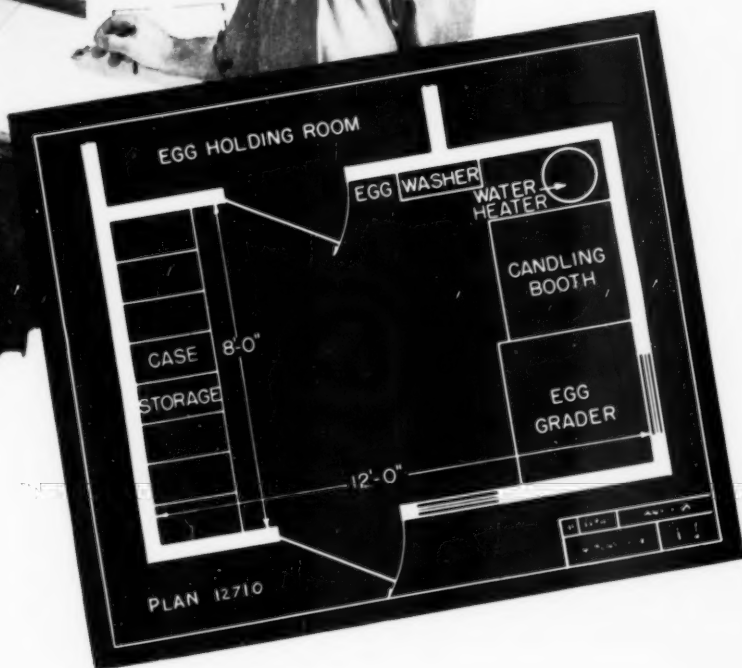
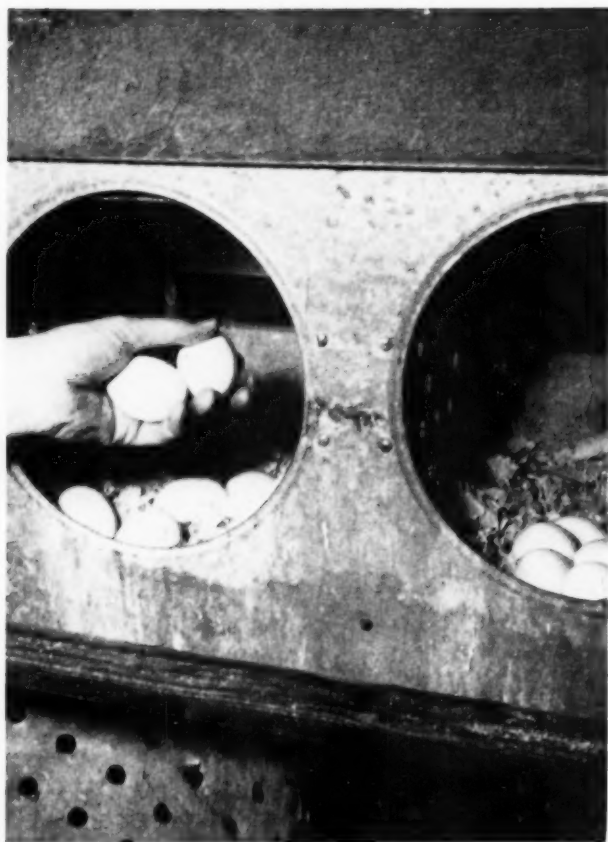


Egg-Grading and Packing-Room Arrangement

WENDELL EARLE and CHARLES OSTRANDER





High-quality eggs need the best of care from nest to market if you expect a good return

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EGG grading and packing take a lot of time. At the best they are still dull, tiresome jobs—jobs that are often put off until tomorrow or the next day. A convenient well-planned arrangement of the working space and equipment makes the jobs easier and shorter.

If you want to improve your egg-grading and packing jobs, the following suggestions may be helpful.

GRADING AND PACKING ROOM

Location

The grading and packing room should be next to the egg-holding room, with a door between them. Whether these rooms should be in the cellar of the dwelling or in the laying house depends primarily on the size of the flock. If you have more than two baskets of eggs at any one gathering, have the egg room in the laying house rather than in the dwelling. A holding room below ground level is recommended where practical. If your egg room is below ground level, be sure that the stairs are at least 4 feet wide, with the rise from 6 to 6 $\frac{3}{4}$ inches and the tread from 10 to 11 inches. These dimensions make it easy to carry loads up and down stairs. The stairway should be well lighted and should lead directly from the egg room to the loading area.

Light and Temperature

The grading and packing room should be well lighted, both naturally and artificially. This helps in packing uniform colored eggs together. Farmers' experiences indicate that the daylight type of incandescent or fluorescent light directly over the packing area is most satisfactory. Use other lights as needed to light the room.

The temperature of the work room should be no more than 10° F. warmer than the storage room to prevent the eggs from sweating.

Size

The size of the room depends largely on the number of hens you keep. Too large a room becomes a catchall, but the room must be large enough to be convenient for the worker and for the storage of extra egg cases.

For 500 hens, have from 45 to 50 square feet

For 1000 hens, have from 80 to 100 square feet

For 5000 hens, have from 100 to 150 square feet

Store egg cases to be used during the week in the egg-holding room so they will be cool and moist.

Equipment Needed

For a small flock of up to 500 hens, you need only a work table or bench, a hand scale, a hand buffer, and perhaps a candler. For larger flocks you need an automatic grader, shelves for flats and fillers over the grader, an egg washer, and perhaps a candler. It may be well to have some benches on wheels for cases of eggs, as shown in figure 4.

A bench that can be used by poultrymen with from 500 to 1000 hens is shown in figure 1. Here the work bench is used to candle and carton eggs for retail sales. The height of the bench brings the basket of eggs within easy reach of both hands of the operator. The candling light is

Figure 1. A handy work bench for the small flock owner who candles most of the eggs sold





Figure 2. The work bench is set up for grading and packing eggs in 30-dozen cases

in the center of the bench, also within easy reach for candling, and a scale is beside the candling light. Cartons are laid out on the first shelf and filled directly after candling. During most of the year, probably only two sizes (large and medium) would be candled. The other two cartons could be used for eggs with blood spots and for cracked eggs. The filled cartons can be closed and stored on the work bench. The top shelf is for flats, fillers, and empty cartons—all within easy reach of the worker. A shelf at the bottom of the bench provides space for either filled or empty cases.

A work bench used by a grower who markets eggs wholesale is shown in figure 2. A basket of eggs is placed in the center of the bench, with two empty cases on either side—one for large eggs and one for medium sized eggs. The first shelf can be used for cracked eggs, jumbos, and other eggs that are not packed in cases. The scale is within easy reach to check weights as necessary. The top shelf is used to store flats, fillers, and cartons.

As the size of flock increases, a longer bench may be needed to handle four cases instead of two. A point is soon reached, however, when this arrangement is too small and the poultryman should shift to an automatic egg grader and washer rather than use a simple hand operation.



Figure 3. This worker saved time by candling the eggs just before they rolled onto the automatic grader

A candling and grading machine for poultrymen with from 1000 to 3000 layers is shown in figure 3. At the left, the worker candles eggs with a slit candler in the center of the inclined track. The eggs then roll to the grader. When in actual operation, the curtain shown in the center of picture is closed to darken the candling booth. This particular poultry grower packs the eggs from the grader directly into one-dozen cartons. The wooden rack over the grader holds the empty cartons before filling. At the extreme right are two 30-dozen cases containing the filled cartons that are ready for sale.

A grading room for a grower who markets his eggs wholesale and handles eggs from a flock of up to 5000 birds is shown in figure 4. The flats and fillers above the grader are within easy reach of the worker, and the bench with wheels is used to hold the egg cases.

Half of the egg case slides under the grader tray for easy filling. Each case is turned around to fill the other half.

The washer (at the right) is of the immersion type. The baskets of eggs are set inside the washer for cleaning.

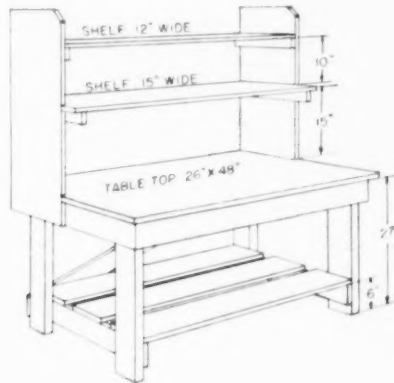
Figure 4. The egg washer and automatic grader grouped closely together save steps



Plans

Plans for work bench (figures 1 and 2)

The 27-inch height is about right for the average individual. Taller and shorter workers may want to change the height of the bench. Three-fourths-inch lumber is used throughout the bench except for the legs which are 2-by-4-inch stock.



Floor plan for egg work room (1000 to 3000 layers)

The equipment is arranged for easy handling of the eggs from the time they are washed until they are packed. Storage space for 32 empty cases is available. Eggs from 5000 layers could be handled in this room if there were additional storage space for empty cases. Cases for immediate use should be stored in the egg-holding room.

Floor plan for egg work room without candling equipment (5000 or more layers)

Space is provided for the storage of from 40 to 80 empty cases. The cases to be used during the week are placed in the egg-holding room so they will be cool and moist. The washing and grading equipment is in one end of the work room for efficient handling of the eggs. The workroom needs to be close to the pens and the holding room to save time and labor while handling eggs. If many cases are handled, a 2- or 4-wheel cart might make the job of moving eggs easier.



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